What is claimed is:

1. A high-density read-only optical disc including a Lead-In area, a data area, and a Lead-Out area, comprising:

the Lead-In area including a specific area having a straight

5 pit-shaped line created by repeated marks and spaces,

wherein either one of the mark or the space is recorded with a minimum pit length.

2. The disc as set forth in claim 1, wherein the specific area

10 contains principal information of the high-density read-only optical disc.

3. The disc as set forth in claim 1, wherein the specific area is an area corresponding to a PIC (Permanent Information & Control

15 data) area, contained in a Lead-In area of the high-density rewritable optical disc, for permanently storing principal disc information.

4. The disc as set forth in claim 3, wherein the high-density read-only optical disc is a BD-ROM (Blu-ray Disc ROM), and the

20 high-density rewritable optical disc is a BD-RE (Blu-ray Disc Rewritable).

5. The disc as set forth in claim 1, wherein the mark and the space are repeatedly recorded in a predetermined recording period

25 with different unique pit lengths according to a data value representing the recording period.

12

6. The disc as set forth in claim 5, wherein sum of pit lengths of each pair of the mark and the space is constant, irrespective of a representative data value of the recording period.

5   7. A method for reproducing data stored in an optical recording medium, comprising the steps of:
a) reading data recorded in a Lead-In area in the form of pre-pits associated with a bi-phased HFM (High Frequency Modulated) groove; and
10   b) reproducing data recorded in a user information area by referring to the read data.

8. The method as set forth in claim 7, wherein the pre-pits are arranged in the form of a straight line.
15

9. The method as set forth in one of claim 7, wherein the data recorded in the Lead-In area is read by a servo operation, and the data recorded in the user information area is read by the same servo operation as said servo operation.
20

10. The method as set forth in one of claim 9, wherein the servo operation is a DPD (Differential Phase Detection) method.

11. A method for recording data in an optical recording medium,
25   comprising the steps of:
a) recording data in a Lead-In area in the form of pits associated with a bi-phased HFM (High Frequency Modulated) groove;

13

and

b) recording user data in the form of straight pits in a user information area.

5   12. The method as set forth in claim 11, wherein the pits are arranged in the form of a straight line.

13. An optical recording medium, comprising:

a Lead-In area in which data is recorded in the form of pre-pits

10   associated with a bi-phased HFM (High Frequency Modulated) groove; and

a user information area in which data is recorded in the form of straight pre-pits.

15   14. The medium as set forth in claim 13, wherein the pre-pits recorded in the Lead-In area are arranged in the form of a straight line.

15. The medium as set forth in claim 13, wherein the pre-pits

20   recorded in the Lead-In area contain predetermined marks and spaces, and either one of the mark or the space is configured with a minimum pit length.

16. An apparatus for reproducing data stored in an optical

25   recording medium, comprising:

a servo unit for reading data recorded in a Lead-In area in the form of pre-pits associated with a bi-phased HFM (High Frequency

14

Modulated) groove, and reading data recorded in a user information area in the form of straight pre-pits by referring to the data read from the Lead-In area; and

a control unit for controlling the servo unit.

15